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**ISSUE PAPER:** Summary of Agricultural Operations in U.S. Nonattainment Areas

**BACKGROUND:**

The potential impact of air quality regulations on agricultural operations is of great interest to USDA. This paper presents a simplified analysis of the value of agricultural production in areas (referred to as nonattainment areas) that do not meet the National Ambient Air Quality Standards (NAAQS) established by the U.S. EPA.

The National Agricultural Statistics Service (NASS) compiles a great deal of information regarding agricultural production in the U.S., including the value of agricultural products. Data from the NASS 2002 Census of Agriculture (which is the latest version of the complete Census of Agriculture) was used for this analysis.

NASS data were compared to the U.S. EPA's list of counties that do not meet the NAAQS for the six criteria air pollutants: particulate matter (PM), ozone, nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), and lead. This list was obtained from the U.S. EPA's "Green Book" website (<http://www.epa.gov/oar/oagps/greenbk/index.html>), which is current as of March 2, 2006. The Green Book list was updated to reflect the final attainment/nonattainment designations that will occur prior to December 31, 2006, based on Federal Register notices since March 2, 2006, that have an effective date on or before December 31, 2006.

**ANALYSIS:**

The following bullets represent key findings of this analysis:

- Of the approximately \$200.6 billion of total agricultural production value listed in the 2002 Census of Agriculture, about \$43.7 billion (21.8% of the total agricultural production value) was produced in a current nonattainment area.
- 38 of the 50 states currently have a nonattainment area. The nonattainment areas in these states affect at least one county for which agricultural production was reported in the 2002 Census of Agriculture.
- Of the 3,079 counties surveyed in the 2002 Census of Agriculture, 496 (16.1% of the total counties) are currently designated as nonattainment for at least one criteria air pollutant. 490 of those 496 counties reported at least some level of agricultural production.
- Nine of the top 10 counties in total agricultural production, representing \$14.2 billion in sales, are currently designated as nonattainment for at least one criteria air pollutant. Eight of these nine counties are in California, and six of them are in the San Joaquin Valley.
- 28 of the top 100 counties in total agricultural production, representing \$24.2 billion in sales, are currently designated as nonattainment for at least one criteria air pollutant.

- Ozone, fine PM (PM<sub>2.5</sub>), and coarse PM (PM<sub>10</sub>) are the main criteria pollutants for which counties with agricultural production have been designated nonattainment.
- 362 of the 1,395 counties (25.9% of the counties) in the NRCS East Region are currently designated as nonattainment for at least one criteria air pollutant. These counties represent approximately \$16.3 billion of total agricultural production value reported in the 2002 Census of Agriculture. Pennsylvania, Delaware, Michigan, and North Carolina have counties that are both designated as nonattainment for either ozone, PM<sub>2.5</sub>, or PM<sub>10</sub> and rank in the top 100 nationally for total agricultural production in the 2002 Census of Agriculture.
- 57 of the 1,261 counties (4.5% of the counties) in the NRCS Central Region are currently designated as nonattainment for at least one criteria air pollutant. These counties represent approximately \$2.4 billion of total agricultural production value reported in the 2002 Census of Agriculture. None of the counties that are designated as nonattainment for either ozone, PM<sub>2.5</sub>, or PM<sub>10</sub> in the NRCS Central Region rank in the top 100 nationally for total agricultural production in the 2002 Census of Agriculture.
- 77 of the 423 counties (18.2% of the counties) in the NRCS West Region are currently designated as nonattainment for at least one criteria air pollutant. These counties represent approximately \$25.0 billion of total agricultural production value reported in the 2002 Census of Agriculture. California, Colorado, and Arizona have counties that are both designated as nonattainment for either ozone, PM<sub>2.5</sub>, or PM<sub>10</sub> and rank in the top 100 nationally for total agricultural production in the 2002 Census of Agriculture.

## **CONCLUSIONS:**

The following bullets represent the key conclusions of this analysis:

- A significant percentage of total agricultural production value in the 2002 Census of Agriculture (21.8%, representing \$43.7 billion) occurs in a current nonattainment area.
- 490 counties with agricultural production in 38 states are designated as nonattainment for at least one criteria air pollutant.
- Further analyses regarding the specific types of agricultural production, the associated emissions, and the ratio of agricultural emissions versus non-agricultural emissions in each of the 490 nonattainment counties with agricultural production should be conducted. The emissions data may not currently be available.

## **FOR MORE INFORMATION:**

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